

What is claimed is:

1. System for vehicles to specify the running location on the road comprising;

recording lateral information on the road provided by GPS or a car navigation system as well as information of buildings on the road , longitudinal level of the ground, and existence of the guardrail;

constructing a confirmation system of the car location combining a large-volume data recording system such as CD, DVD, or the other devices developed from now to obtain vertical images of a car location and a vertical information as well as a road information currently available to improve a dimensional location confirmation system, and;

calculating an actual location such as a distance from the end of the road or the center line by using the confirmation system and analyzing images provided by elemental devices such as CCD, CMOS placed in front and backward fixedly or turnably to specify the current location of the car.

2. System for optimizing and performing caution or driving to avoid an accident based on the risk comprising;

digitizing images by using CCD or CMOS elements for driving safety;

discriminating and managing the risks for a car by comparing images or object information which is information of object of cars, human waling, object approaching to the car, guardrail, center line, and traffic sign recorded in ROM or DISK etc. and patternized after calculating distances and shapes;

measuring distances from between the object and a car continuously;

calculating moving states of the object and distances from a car near-future to control as information of the risks, and;

analyzing these information and the risks based on speed, direction, and weight of the car to calculate the location of the car after few minutes.

3. System for driving automatically to the destination arranged preliminarily comprising;

forecasting a location of the car by taking in the location of a car correctly, and; analyzing a distance and shifting of the object in a shortest distance using images provided by elemental devices such as CCD, CMSO.

4. System for controlling driving by using operational sticks comprising;

replacing steering gear to one or two operational sticks and omitting a steering wheel, brake, pedals of an accelerator and a clutch;

wherein the operational sticks are fly-wire type;

the first operational stick detects the driving directions or the shifting from the center line to analyze and replace to the electronic information and transmit them to the various control device such as engine control device, control device of tire direction, and gear control device,

the second operational sticks is used for setting driving mode, reporting driver's intention to the driving control device, and managing control device to avoid the mechanical error,

setting driving mode such as automated driving, overtaking driving, back up, parking, following mode, on-the-street parking mode, or leading mode in order to transmit driving control device.

5. System for stopping a vehicle when the driving safety is not provided because general system and driving information for drivers using operational sticks is against the information provided by the system according to claim 3.

6. An assist device for measuring distances between a car and objects around the car placed in a directional light or a back light comprising light emitting system such as infrared light for detecting by elemental devices such as CCD, CMOS in the night time.

7. System for automated driving comprising;  
a program depends on feature of vehicle to build onto a driving modes,  
images provided by elemental devices such as CCD, CMOS, and  
controlling numerical information based on the images.

8. A device for keeping view comprising removal device for dust, mud and a drop of water using water, organic compound driven by electric, air or oil pressure placed in front of elemental devices such as CCD, CMOS,  
and lenses for recognizing direction by exposing in wide angle.

9. A device for shifting lenses and focusing images for objects to measure distances between the objects and a car using a figure of elemental devices and changing angles for lenses.

10. System comprising the driving sign-board which shows the information for location of the buildings, traffic sign, road condition, current speed, condition of

acceleration and decelerating, and condition for the change of the direction, in place of the display mainly containing speedometer which is used before.

11. System for using the radio wave provided by engine and measuring distances comprising;

- rotating dynamos;

- catching the electromagnetic waves by radiated from spark which is contacted with carbon brush,, by two directional antenna placed on right side and left side;

- amplifying;

- measuring distance from sources of waves;

- calculating by microcomputer the risks of the car in front and in backward based on a speed of each cars;

- lightning the alarm lamp or driving to avoid the risks automatically depending on the result.